BRUHAT BANGALORE MAHANAGARA PALIKE

Office of the Executive Engineer, Rajarajeshwari Nagara Division, RR Nagara Zone, B.B.M.P., Bangalore.

Tender Notification No: EE/RRND/Tend/19/2019-20 Date: 02.03.2020

Indet No: BBMP/2019-20/WS/WORK_INDENT40838

SCHEDULE -B

Name of Work: Drilling of Borewells and Maintenance of RO Plant in RR Nagar Constituency

Sl.No	Qty	Description of work	Unit	In Figures (Rs.)	In Words (Rs.)
1	2	3	4	5	6
1	4.00	Raw water Feed pump with starter,Type-Horizontal ,Centrifugal.Make-Kirloskar/Beacon weir/Sumo/CNP(SS),Material of Construction-Cast Iron,Head-36 MWC. Motor-3.0HPthree phase.Starter-L&T Siemen make push botton type DOL Starter	Nos	26000.00	Rupees Twenty Six Thousand Only
2	4.00	Multi graded sand filter,type-verticle,Floor Mounted,Make-pentair/structural/ION EXCHANGE(INDIA) LTD/Zeolite/Aquario,min.operating Pressure 2.0kg/cm2,Max. Operating Pressure -3.5kg/cm2, Treatment Flow Rate-6000liters/Hr,Type of valve size-Multiport,50NB,make-UKL/Initiative,Filtering Media -Gravel,Graded Sand & Pebble	Nos	35000.00	Rupees Thirty Five Thousand Only
3	4.00	Activated carbon Filter type-Verticle,Floor Mounted,Make-pentair/Structural/ION EXCHANGE(INDIA) LTD/Zeolite/Aquario,min.operating Pressure 2.0kg/cm2,Max. Operating Pressure -3.5kg/cm2, Treatment Flow Rate-6000liters/Hr,Type of valve size-Multiport,50NB,make-UKL/Initiative,Filtering Media -Gravel, Activated Carbon & pebbles	Nos	65563.00	Rupees Sixty Five Thousand Five Hundred Sixty Three Only
4	4.00	Water Softner,type-Verticle,Floor Mounted,Make-pentair/Structural/ION EXCHANGE(INDIA) LTD/Zeolite/Aquario,min.operating Pressure 2.0kg/cm2,Max. Operating Pressure 3.5kg/cm2, Treatment Flow Rate-6000liters/Hr,Type of Resin INDION 220Na or Thermax T40	Nos	65038.00	Rupees Sixty Five Thousand Thirty Eight Only
5	4.00	Antiscalant Dosing System,Equipment Required-Electronic Dosing Pump with Solution Tank,make-Ion Exchange (I) Ltd.,/ASIA LMI/Zeolite,Material of Construction-PP(Polypropelene),Discharge @Max Back Pressure-2.88litr/Hr @8bar,Discharge@Nominal Back Pressure=3.12Lit/Hr @ 4Bar,Chemical to be dosed-INDION Antiscalant	Nos	89165.00	Rupees Eighty Nine Thousand One Hundred Sixty Five Only
6	4.00	Accessories for Dosing System,Solution Tank-One No,Volume-100Litres,Material of Construction-HDPE,Tank level Switch-One No.	Nos	44058.00	Rupees Forty Four Thousand Fifty Eight Only
7	4.00	Reverse Osmosis System,Type-Horizontal Skid,Floor Mounted,Permeate water-Minimum 2000litr/hr,Maximum Permissable TDS in feed (PPM)-2500.	Nos	93361.00	Rupees Ninety Three Thousand Three Hundred Sixty One Only
8	4.00	Pressure Vessel,Material of Construction-FRP,Make-Advance Composite/Code Line.	Nos	89165.00	Rupees Eighty Nine Thousand One Hundred Sixty Five Only

Signature of the contractor

Executive Engineer
RRNagara Division
BBMP

9	3.00	Membrane, Type-Brackish water . Nos required-Three.Make-TORAY JAPAN /Hydranautics/Filmtec/Tricep	Nos	92312.00	Rupees Ninety Two Thousand Three Hundred Twelve Only
10	3.00	High pressure pump,Type- verticle,multistage,Make-GRUNDFOS,MOTOR-7.5 HP 3Phase, Model-CRN series,Material of construction-SS316,starter-L&T/Seimens make push botton type DOL starter	Nos	57695.00	Rupees Fifty Seven Thousand Six Hundred Ninety Five Only
11	3.00	Micron Filter,Type -JUMBO,Material of construction of housing-poly propelene	Nos	81822.00	Rupees Eighty One Thousand Eight Hundred Twenty Two Only
12	4.00	Instruction, Wet panel -Ms powder coated., Mounted on R.O> skid, Low pressure switch-one No,High Pressure Switch-one, Digitalconductivity Meter wiyh sensor , Indon brand-one No , ON/OFF selector Switch -one No, High pressure System Pressure Gauge - one No, Auto Flush Timer -one No, Indication Lamps -one No, product Flow Meter- one No, Reject Flow Meter-one No,Reject Re-circolation Meter-one No,Alarm-one No	Nos	90214.00	Rupees Ninety Thousand Two Hundred Fourteen Only
13	4.00	PH correction dosing System, Equipment Required-Electronic Dosing Pump with solution Tank, Make-Ion Exchange(1) Ltd.,/ASIA LMI/Zeolite,Material of construction -PP, Discharge @ max . Back Pressure-2.88 Lit/Hr@8Bar.Discharge@Nominal Back Pressure-3.12 Lit/Hr@4Bar,Frequency-100 Strokes / Min, Chemical to be dosed-PH Booster	Nos	87067.00	Rupees Eighty Seven Thousand Sixty Seven Only
14	2.00	Solution Tank with level switch, Solution Tank-one No, Volume-100 Liters. Material of construction-HDPE. Tank levelswitch-one No	Nos	15735.00	Rupees Fifteen Thousand Seven Hundred Thirty Five Only
15	3.00	Inter-connecting pipe work ,Raw water tank to feed pump suction and feed pump delivery to R.O. Inlet (up to High pressure pump in let)and RO outlet to Treated water tank-food Grade PVC pipe 40mm NB, Make-Finolex/ supreme,High pressure pump outlet to membrane inlet-ss pipe of required size, Approximate Length-35.0 Metre	Nos	81822.00	Rupees Eighty One Thousand Eight Hundred Twenty Two Only
16	3.00	Ultra violet system, Model-UVS-20,Make-Ion Exchange (I) Ltd.,/ASIA LMI/Zeolite,ALFA Flow rate-2000L/H	Nos	78151.00	Rupees Seventy Eight Thousand One Hundred Fifty One Only
17	4.00	Wending Machine ,Digital Swiping Card Type	Nos	36715.00	Rupees Thirty Six Thousand Seven Hundred Fifteen Only

Signature of the contractor

Executive Engineer
RRNagara Division
BBMP

18	5.00	Geophysical investigation of site for Sinking borewell for supplying drinking water to the habitations either through the hand pump,MWS,P.W.S.S by vertical electrical sounding by adpoting venner or Schlumberger's method,including reconnaissance survey of Geological formation. Geophysical investigation of existing ground indecundity its quality & acceptability of the users indicating the location of site,recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 metre inconsolidated formation for proper seating of casing pipe,depth of drilling required to cover full depth of aquifer proposed to be tapped,probable yield and other information required including transportation of instrument and accesories to work site,engaging technical personal and labour required etc.,	Nos	3953.00	Rupees Three Thousand Nine Hundred Fifty Three Only
19	250.00	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burden upto 20 M fixing of casing pipes, collars and cap with necessary cutting and threading including transportation of rig and supporting vehicals, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour .(excluding cost of casing pipes, collars, cap ect.) 0 to 50 m	Rmtr	364.00	Rupees Three Hundred Sixty Four Only
20	250.00	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burden upto 20 M fixing of casing pipes, collars and cap with necessary cutting and threading including transportation of rig and supporting vehicals, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour .(excluding cost of casing pipes, collars, cap ect.) 50 to 100 m	Rmtr	464.00	Rupees Four Hundred Sixty Four Only
21	250.00	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burden upto 20 M fixing of casing pipes, collars and cap with necessary cutting and threading including transportation of rig and supporting vehicals, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour .(excluding cost of casing pipes, collars, cap ect.) 100 to 150 m	Rmtr	485.00	Rupees Four Hundred Eighty Five Only
22	250.00	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burden upto 20 M fixing of casing pipes, collars and cap with necessary cutting and threading including transportation of rig and supporting vehicals, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour .(excluding cost of casing pipes, collars, cap ect.) 150 to 200 m	Rmtr	568.00	Rupees Five Hundred Sixty Eight Only
23	250.00	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burden upto 20 M fixing of casing pipes, collars and cap with necessary cutting and threading including transportation of rig and supporting vehicals, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour .(excluding cost of casing pipes, collars, cap ect.) 200 to 250 m	Rmtr	675.00	Rupees Six Hundred Seventy Five Only

Signature of the contractor

Executive Engineer
RRNagara Division
BBMP

24	250.00	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burden upto 20 M fixing of casing pipes, collars and cap with necessary cutting and threading including transportation of rig and supporting vehicals, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour .(excluding cost of casing pipes, collars, cap ect.) 250 to 300 m	Rmtr	735.00	Rupees Seven Hundred Thirty Five Only
25	250.00	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burden upto 20 M fixing of casing pipes, collars and cap with necessary cutting and threading including transportation of rig and supporting vehicals, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour .(excluding cost of casing pipes, collars, cap ect.) 300 to 350 m	Rmtr	865.00	Rupees Eight Hundred Sixty Five Only
26	250.00	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burden upto 20 M fixing of casing pipes, collars and cap with necessary cutting and threading including transportation of rig and supporting vehicals, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour .(excluding cost of casing pipes, collars, cap ect.) 350 to 400 m	Rmtr	944.00	Rupees Nine Hundred Forty Four Only
27	100.00	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 300 PSIG & above 1100 CMF & above in all strata including over burden upto 20 M fixing of casing pipes, collars and cap with necessary cutting and threading including transportation of rig and supporting vehicals, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour .(excluding cost of casing pipes, collars, cap ect.) 400 to 420 m	Rmtr	1184.00	Rupees One Thousand One Hundred Eighty Four Only
28	30.00	Providing and fixing 250mm dia PVC (casing pipe)	Rmtr	2727.00	Rupees Two Thousand Seven Hundred Twenty Seven Only
29	150.00	Supply of ISI Mark 175mm nominal Bore, Plain end steel casing Pipe-grade of steel Fee 4100 of wakk thickness 504mm thick confirming to IS 4270:2001 and latest amendments, electric resistance welded steel electric or basic oxygen process in fandom length of 5 to 7mtr. Both ends threaded confirming to Is554/1985 one end fixed with socket confirming to IS 270:2001 and other end with screwed pipes. All pipes shall be reasonably free from defectes. The tubes shall be resonably straigth should be with ISI Marking Weighting 25.10 kg/mtr (Inclusive of all taxes and durties) Prices include Collar - medium duty.	Rmtr	1390.00	Rupees One Thousand Three Hundred Ninety Only
30	25.00	Providing 175mm Dia M.S. Collar	Nos	157.00	Rupees One Hundred Fifty Seven Only
31	5.00	Providing 175mm dia Bore Cap CE (M)	Nos	105.00	Rupees One Hundred Five Only

Signature of the contractor

Executive Engineer
RRNagara Division
BBMP

32	5.00	Atalanta suguna CRI KIRLOSKAR and other equipments pumps 10.00 HP/7.5 KV (20 stage)	Nos	52403.00	Rupees Fifty Two Thousand Four Hundred Three Only
33	1750.00	Providing and fixing in trenches galvinised/mild steel tube 50mm dia nominal bore with all fittings (earth work in trenches to be measured and paid for seperately) including cost of all materials, labour charges,HOM of equipment and testing complete as per specifications.	Rmtr	431.00	Rupees Four Hundred Thirty One Only
34	3550.00	Supplying and drawing 3 core flat PVC sheathed submersible pump cable maufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to table 3 class 5 to IS 8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100 volts with specified IS 694:1990 and confirming to the attwached GTP of group A 3CX4.0 sq.mm	Rmtr	133.00	Rupees One Hundred Thirty Three Only
35	5.00	Providing and fixing in position 50mm Nominal bore non-return valve vertical type of approved make including cost of all materials,labour and HOM of equipment with all leads complete as per specifications.	Nos	1411.00	Rupees One Thousand Four Hundred Eleven Only
36	5.00	Spplying and fixing 50mm GI Union.	Nos	235.00	Rupees Two Hundred Thirty Five Only
37	5.00	Spplying and fixing 50mm GI Elbow.	Nos	117.00	Rupees One Hundred Seventeen Only
38	5.00	Spplying and fixing 50mm GI Nipple.	Nos	109.00	Rupees One Hundred Nine Only
39	290.00	Spplying and fixing 50mm GI Hose colleres	Nos	108.00	Rupees One Hundred Eight Only
40	5.00	Supplying and fixing 20" x 20" x 2.5" polished wood board made of not less than 15mm thick plank on both the sides with planks made out of not more than 2 pieces and fixing the same to the wall using tapered inverted wooden plugs screws etc.,	Nos	184.00	Rupees One Hundred Eighty Four Only
41	5.00	Supplying and fixing miniature circuit breakers on existing MCB distribution board using necessary fixing materials and 'C' type curve indicator ON/OFF energy cross-3 with short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.	Nos	2490.00	Rupees Two Thousand Four Hundred Ninety Only
42	5.00	Supplying of TPST with rewirable porcelain channels in SM encloser made out of 14 SWG powder coated point of approved colour 32 amps	Nos	1888.00	Rupees One Thousand Eight Hundred Eighty Eight Only
43	5.00	Supplying and fixing LED type panel board indicating lamp with required colour suitable for 220 V AC 50 HZ 12/24 V DC	Nos	451.00	Rupees Four Hundred Fifty One Only
44	5.00	Suppling fully automatic star delta starter unit push button type with suitable wires 2 conductors and adjustable thermal timer mounted on a common base plate held in steel enclosure for use on 400/440 volts phase and wired after fixing to the existing wooden board for motor. upto 12.5HP	Nos	6713.00	Rupees Six Thousand Seven Hundred Thirteen Only

Executive Engineer
RRNagara Division
BBMP

Signature of the contractor

45	5.00	Supplying and fixing single phase preventer using necessary wires over an existing panel board suitable for motar up to 20 HP capacities.	Nos	781.00	Rupees Seven Hundred Eighty One Only
46	100.00	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade multistrand copper conductor single core wire in open or concealed system of wiring as per IS 694:1990 & conforming to the attached GTP of group A. 4 sqmm	Mtrs	47.00	Rupees Forty Seven Only
47	20.00	Supplying fixing and wiring heavy duty low voltage capacitors conforming to IS 2834 phase 400/440 volts grade, for power factor improvement of rotating machinery.	Nos	419.00	Rupees Four Hundred Nineteen Only
48	5.00	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C cotouts and other equipments on the meter board using 40mm dia 2.90 thick GI pipe 2.5 mtr long buried in a pit... The pit should be filled with equal proprotion of salt and charcoal 150mm alround the pipe to complete depth. The connection from the to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia	Nos	3146.00	Rupees Three Thousand One Hundred Forty Six Only
49	40.00	Digging of trench of 0.36mtrs deepx0.5 mtrs wide refilling the trench to the required gorund level and consolidating etc., complete	Mtrs	106.00	Rupees One Hundred Six Only
50	50.00	Supplying of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 4 core 16 sqmm	Mtrs	157.00	Rupees One Hundred Fifty Seven Only
51	125.00	Labour charge for laying 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe/ on wall / on poles as required in existing trench/duct. 6 sq mm to 16 sq mm	Nos	12.00	Rupees Twelve Only
52	10.00	Supplying and fixing class-A(medium duty) GI pipe wall thickness not less then 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1KV class 40mm	Rmtr	351.00	Rupees Three Hundred Fifty One Only
53	5.00	Supplying and fixing LT cast iron pot heads suitable for 1.1KV class UG cable filled with necessary bitumen / insulating compound complete with terminals,clamps bolts and nuts and washer etc.,complete for 16 sq mm as per specifications.	Nos	283.00	Rupees Two Hundred Eighty Three Only
54	15.00	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers. 63 amps	Nos	238.00	Rupees Two Hundred Thirty Eight Only
55	81.45	Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials upto a lead of 1000 meters, stacking serviceable and unserviceable materials seperately complete as per specifications.	Cum	1000.00	Rupees One Thousand Only
56	122.51	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications.	Cum	499.00	Rupees Four Hundred Ninety Nine Only

Signature of the contractor

Executive Engineer
RRNagara Division
BBMP

57	880.00	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings, this includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete. (external work) - 50mm nominal OD pipes	Rmtr	480.00	Rupees Four Hundred Eighty-Only
58	5.00	Making connection of G.I.distribution branch with G.I.main of 25mm to 40mm. Nominal bore, including cutting and threading the pipes,providing and fixing Tee, nuts,labour for all item of works,testing and HOM of equipments complete as per specifications.	Each	537.00	Rupees Five Hundred Thirty Seven Only
59	32.50	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778 having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings, this includes jointing of pipes and fittings with one step solvent cement, trenching, refilling & testing of joints complete. (external work). - 20mm nominal OD pipes	Mtrs	174.00	Rupees One Hundred Seventy Four Only
60	470.00	Providing and fixing to wall, ceiling and floor Medium density polyethylene pipes 6.00 kgf/sq.cm working pressure 25mm outside diameter with special flange, compression type fittings, wall clips, making good the wall, ceiling and floor, including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications.	Mtrs	143.00	Rupees One Hundred Forty Three Only
61	85.76	KSRB 2-4 : Refilling available around earth pipe lines,cables in layers mot exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. And lift upto 1.5m. Including cost of all labour complete as per specifications.	Cum	135.00	Rupees One Hundred Thirty Five Only
62	118.20	Loading and unloading of stone boulder/stone aggregates/sand/kanker/ moorum. KSRRB M100-1:Placing tipper at loading point, loading with front end loader,dumping, turning for return trip, excluding time for haulage and return trip complete as per specification	Cum	100.00	Rupees One Hundred Only
63	5.00	KSRB 2-4 : Providing and fixing in position brass gate valve with C.I.wheel of approved quality (screwed end) 50mm nominal bore including cost of all materials,labour and HOM of equipments with all leads complete as per specifications.	Each	1933.00	Rupees One Thousand Nine Hundred Thirty Three Only
64	5.00	KSRB13-6.2-1 : Providing and fixing in position brass stop cock of approved quality 15mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications.	Each	156.00	Rupees One Hundred Fifty Six Only
65	61.26	KSRB 4-1.3 : Providing and laying in position plain cement concrete of mix 1:4:8 with OPC cement @ 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.85cum and fine aggregates @ 0.57cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.	Cum	5673.00	Rupees Five Thousand Six Hundred Seventy Three Only
66	61.26	Providing and laying cement concrete using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) M 20 for R.C.C works laid in 15 cms thick layers and well compacted vibrating, curing, for foundations & sub-structure works with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.)	Cum	6053.00	Rupees Six Thousand Fifty Three Only

Executive Engineer
RRNagara Division
BBMP

Signature of the contractor